:	Form PTO-1449 (Modified)			Seria	Serial No.: 10/655,227 Filing Date: September 4, 2003						
İŅF		TION DISCLO A PATENT AI	SURE STATEMEN	IT Inver	or(s): Morin et al.						
			LICATION	Grou	Art Unit: 1774	Examiner:		63 :			
٠.	• •	Sheet 1	of <u>3</u> .	USP	O Customer No: 25280	Case No.: 5514A					
•		•		U.S. P.	TENT DOCUMENTS	L	_				
	MINER TIALS	IDENTIFIER	DOCUMENT NUMBER	DATE	NAME		CLASS	SUB			
h	<u> </u>	AA	5,231,126	7-27-93	Shi et al		524	296			
		AB	5,512,357	4-30-96	Shimura et	al.	428	283			
•		AC	5,753,736	5/19/88	Bhat		524	287			
		AD	6,135,987	10/24/00	Tsai et al.		604	365			
•		AE	6,162,887	12/19/00	Yamada et	al.	526	351			
		AF	6,210,802	4-3-01	Risch et al		428	· 398			
		AG	6,218,011	4/17/01	Raetzsch et	al.	428	394			
		AH	6,231,976	5-15-01	Dean et al.		428	373			
		AJ	6,238,615	5-29-01	Kobayashi et	al.	264	537			
		AJ	6,261,677	7-17-01	Tsai et al.		428	221			
	·	AK	6,284,370	7-4-01	Fujimoto et a	al.	428	221			
		AL	6,300,415	10-9-01	Okayama et	af.	525	191			
		AM	2001/0040320	11-15-01	Kobayashi et	al.	264	537			
		AN	2001/0048179	12-6-01	Stewart et a	l.	264	211			
•		AO	2002/0002241	1-3-02	Raetzsch et		123	556			
		AP	4.016,118	4/5/77	Hamada et a	ıl.	260	17.45			
•		· AQ	4,463,113	7/31/84	NaKahara et	al.	524	117			
		AR	5,049,805	9/17/91	Rekers		524	108			
·		AS	5,342,868	8/30/94	Kimura et al		524	108			
	· .	AT	5,798,167	8/25/98	Connor et al		428	171			
7		AU	5,811,045	9/22/98	Pike		264	168			
1		AV	6,102,999	8/15/00	Cobb, ill et a	I	106	243			
T		AW	6,127,470	10/3/00	Cobb, III et a		524	367			
1		AX	6,270,608	8/7/01	Veir, Jr. et a		156	176			
1		AY	6,207,600	3/2001	Nakajima et a		442	311			
1		AZ	5,945,211	8/99	Bersted et al		428	364			
7		s BA	6,127,440	10/3/00	Senyasi et a		521	74			
		B8	6,541,554	4/1/03	Morin etal.		-524	387.			

PAGE 4/8 * RCVD AT 5/4/2004 10:35:29 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/25 * DNIS:2731521 * CSID:864 503 1999 * DURATION (mm-ss):03-30*

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Fo	orm PTO-144	9 (Modified)	Serial No.: 10	0/655,227	Filing Date: September 4, 2003
a	TION DISCLO	SURE STATEMENT	Inventor(s): A	Morin et al.	
			Group Art Un	nit: 1774	Examiner: Edwards,
	Sheet 2	of <u>3</u> .	US PTO Cus	tomer No: 25280	Case No.: 5514A
			OTHER DO	CUMENTS	•
EXAMINER INITIALS	IDENTIFIER		INCLUDE: AUT	THOR, TITLE, DATE, PE	RTINENT PAGES, ETC.
8	вх	Patent abstracts of Ja			54; date of publication of application polypropylene fiber; English translation
	BY	Patent abstracts of Ja	06.07.1999; H	lighly heat-resistant	19; date of publication of application polypropylene fiber and fiber-reinforced same; English translation
	BZ .		apan; publication	on number 2001-08	1628; date of publication 27.03.2001; Flat ched carpet; English translation
	CA-				2825; date of publication 18.10.2002; ers; English translation
	СВ		olied polymer so Spruiell et al.	clence, vol. 62, 196	5-1975 (1996) John Wiley & Sons, Inc.;
	CD			ne development of sec '91; Lin et al.	tructure and properties of polypropylene
	CE			filaments; @ 1993 J	ment of the structure and properties of ohn Wiley & Sons, Inc.; CCC 0021-
	CF			rystalline from isota r Processing VI, 19	ctic polypropylene fiber; fiber and films, 91; Chen et al.
V	cG	Article; Heterogeneous	s Nucleation of	Polypropylene and	Polypropylene Fibers; Marcincin et al.;
			•		
			•		
Examiner:	EC	enl	7	Date Considered:	5/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

F	om PTO-14	49 (Modified)	Serial No.:	10/655,227	· Fil	ing Date:	: Septemb	er 4, 200)3
		OSURE STATEMENT	T. inventor(s):	: Morin et al.		٠.			
114	AFAILITI	WY GIONTION	Group Art L	Jnit: 1774	Ex	aminer: [Edwards,4		
	Sheet 3	of <u>3</u> .	US PTO CI	ustomer No: 25280	Ca	se No.: 5	5514A		
			FOREIGN PAT	ENT DOCUMENTS	•	· · · · · · · · · · · · · · · · · · ·			·
EXAMINER INITIALS	IDENTIFIER	DOCUMENT NUMBER	DATE	COUNTRY		CLASS	SUB- CLASS	TRANS	YES
Z	СН	ÉP 94810075.1	4/17/94 10.02.04	EP EP	•		•	х	
	CI ·	EP0 806 237	07.05.1997	EP				X.	
	Cl	JP2002-302825	4.4.2001	Japan .					х
	СК	WP 02/46502	6/13/02	WO		•		X	
	CL	TP 11140719	5/25/99	. Jb			,		×
V	СМ	TP11061554A	3/5/99	JP			·	. X .	· ·
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^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

BC	4,560,734	12/24/85	Fujishita et al.	526	142
BD	6,203,881	3/20/01	Higgins	428	95
BE	5,945,215	9/12/97	Bersted et al.	428	364
BF	6,559,216	5/03	Zhao et al.	524	336
BG	4,522,857	6/11/85	HiggIns	428	95
BH	5,540,968	7/30/96	Higgins	428	95
_BI	5,545,276	8/13/96	Higgins	156	79
₿J	5,948,500	9/7/99	Higgins	428	.95
вк	4,171,395	10/16/79	Tolletson	428	95
BL	4,132,817	1/2/79	Tillotson	427	244
вм	4,512,831	4/23/85	Tillotson	156	78
BN	4,116,626	9/26/78	Vamer	4	149
·во	5,136,520	8/4/92	Cox	364	470
BP	5,208,592	5-4-93	Johnson, Jr.	341	63
BQ	6,534,574	3/03	Zhao et al.	524	284
BR	6,559,211	5/03	Zhao et al.	524	285
· BS	6,656,404	12/03	Morin	264	210.5
вт	6,110,588	8/29/00	Perez et al.	428	359
BU	6,420,024	7/16/02	Perez et al.	428	359
BV	6,358,450	3/19/02	· Sun	264	178
BW	5,912,292	6/15/99	Sun	524	301
5	1 - 11	7/	Date Considered:		<u>.</u>
	BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW	BD 6,203,881 BE 5,945,215 BF 6,559,216 BG 4,522,857 BH 5,540,968 BI 5,545,276 BJ 5,948,500 BK 4,171,395 BL 4,132,817 BM 4,512,831 BN 4,116,626 BO 5,136,520 BP 5,208,592 BQ 6,534,574 BR 6,559,211 BS 6,656,404 BT 6,110,588 BU 6,420,024 BV 6,358,450 BW 5,912,292	BD 6,203,881 3/20/01 BE 5,945,215 9/12/97 BF 6,559,216 5/03 BG 4,522,857 6/11/85 BH 5,540,968 7/30/96 BI 5,545,276 8/13/96 BJ 5,948,500 9/7/99 BK 4,171,395 10/16/79 BL 4,132,817 1/2/79 BM 4,512,831 4/23/85 BN 4,116,626 9/26/78 BO 5,136,520 8/4/92 BP 5,208,592 5-4-93 BQ 6,534,574 3/03 BR 6,559,211 5/03 BS 6,656,404 12/03 BT 6,110,588 8/29/00 BU 6,420,024 7/16/02 BV 6,358,450 3/19/02	BD 6,203,881 3/20/01 Higgins BE 5,945,215 9/12/97 Bersted et al. BF 6,559,216 5/03 Zhao et al. BG 4,522,857 6/11/85 Higgins BH 5,540,968 7/30/96 Higgins BI 5,545,276 8/13/96 Higgins BJ 5,948,500 9/7/99 Higgins BK 4,171,395 10/16/79 Tollotson BL 4,132,817 1/2/79 Tillotson BM 4,512,831 4/23/85 Tillotson BN 4,116,626 9/26/78 Vamer BO 5,136,520 8/4/92 Cox BP 5,208,592 5-4-93 Johnson, Jr. BQ 6,534,574 3/03 Zhao et al. BR 6,559,211 5/03 Zhao et al. BS 6,656,404 12/03 Morin BT 6,110,588 8/29/00 Perez et al. BU 6,420,024 7/16/02 Perez et al. BV 6,358,450 3/19/02 Sun	BD 6,203,881 3/20/01 Higgins 428 BE 5,945,215 9/12/97 Bersted et al. 428 BF 6,559,216 5/03 Zhao et al. 524 BG 4,522,857 6/11/85 Higgins 428 BH 5,540,968 7/30/96 Higgins 428 BI 5,545,276 8/13/96 Higgins 156 BJ 5,948,500 9/7/99 Higgins 428 BK 4,171,395 10/16/79 Tollotson 426 BL 4,132,817 1/2/79 Tillotson 427 BM 4,512,831 4/23/85 Tillotson 156 BN 4,116,626 9/26/78 Varner 4 BO 5,135,520 8/4/92 Cox 364 BP 5,208,592 5-4-93 Johnson, Jr. 341 BQ 6,534,574 3/03 Zhao et al. 524 BS 6,656,404 12/03 Mortin 2

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F	om PTO-144	49 (Modified)	Seri	Serial No.: 10/655,227 Filing Date: September 4, 2003						
INFORMAT	TION DISCLO	OSURE STATEME	NT Inve	tor(s): Morin et al.	- 	·				
			Grou	Art Unit: 1774	Examiner: Edward	s, Newt	on O.			
	Sheet 1	of <u>3</u> .	USF	O Customer No: 25280	Case No.: 5514A		 .			
			U.S. F	TENT DOCUMENTS	<u> </u>					
XAMINER IDENTIFIER DOCUMENT NUMBER		DATE	DATE NAME		CLASS	SU CLA				
	_ AA	5,231,126	7-27-9	Shi et al		524	29			
	AB	5,512,357	4-30-9	Shimura et	al.	428	28			
<u> </u>	AC	5,753,736	5/19/88	Bhat		524	28			
	AD	6,135,987	10/24/0	Tsai et al.		604	36			
	AE .	6,162,887	12/19/0	Yamada et	al.	526	35			
	AF	6,210,802	4-3-01	Risch et al	./	428	39			
	AG	6,218,011	4/17/01	Raetzsch et	al.	428	39			
	AH	6,231,976	5-15-01	. Dean et al.		428	37			
	Al	6,238,615	5-29-01	· · Kobayashi et	al.	264	53			
	AJ	6,261,677	717-01	Tsai et al.		428	22			
	AK	6,284,370	7-4-81	Fujimoto et a	al.	428	22			
	AL	6,300,415	10-9-01	Okayama et :	al.	525	191			
	AM	2001/0040320	11-15-01	Kobayashi et	al.	264	537			
<u> </u>	AN	2001/0048179	12-6-01	Stewart et a		264	211			
	_AO	2002/0002241	1-3-02	Raetzsch et a	al.	123	556			
	AP	4,016,118	4/5/17	Hamada et a		260	17.45			
	AQ	4,463,113	//31/84	WaKahara et a		524	117			
	AR	5,049,605	9/17/91	Rekers		524 :	108			
	AS	5,342,868	8/30/94	Kimun et al.		524	108			
	AT	5,798,167	8/25/98	Connor et al.		428	171			
	AU	5,811,045	9/22/98	Pike		264	168			
	AV	6,102,999	8/15/00	Cobb, III et al		106	243			
	AW	6,127,470	10/3/00	Cobb, III et al		524	367			
	AX	6,270,608	8/7/01	Vair, Jr. et al.		156	176			
	AY	6,207,600	3/2001	Nakajima et al		442	311			
\mathcal{A}	AZ	.5,945,211	8/99	Bersted et al.		428	364			
	* BA	6,127,440	10/3/00	Sanyasi et al.		521	74			
	ВВ	6,541,554	4/1/03	Morin et al.		524	387			

PAGE 5/10 * RCVD AT 5/3/2004 10:43:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/1 * DNIS:8729306 * CSID:864 503 1999 * DURATION (mm-ss):03-56 TS)

F	orm PTO-144	19 (Modified)	Serial No.: 10/655,227	Filing Date: September 4, 2003
INFORMATION IN A	TION DISCLO	OSURE STATEMENT PPLICATION	Inventor(s): Morin et al.	
	· .		Group Art Unit: 1774	Examiner: Edwards, Newton O.
	Sheet _2_	of <u>3</u> .	US PTO Customer No: 25280	Case No.: 5514A
	· · · · · · · · · · · · · · · · · · ·		OTHER DOCUMENTS	
EXAMINER INITIALS	IDENTIFIER		INCLUDE: AUTHOR, TITLE, DATE, PERTINE	ENT PAGES, ETC.
	ВХ	Patent abstracts of Ja	apan; publication number 11-061554; da 05.03.1999; Highly heat-resistant polyp	ate of publication of application propylene fiber, English translation
	BY	Patent abstracts of Ja	pan; publication number 11-181619; da 06.07.1999; Highly heat-resistant polyp cement molded product using the same	ate of publication of application
	BZ	Patent abstracts of Ja	pan; publication number 2001-081828; yarn for base cloth of needle-punched	date of publication 27 03 2004; Flor
	CA	Patent abstracts of Ja	pan; publication number 2002-302825; Highly-resistant palypropylene fibers; E	date of publication 18 10 2002
	СВ	Article; Journal of appl	ied polymer science, vol. 62, 1965-197 Sprojet et al.	
	CD	Article: The effects of	pigments on the development of structuillaments; Antec 91: Lin et al.	re and properties of polypropylene
	CE	/ P	tallization kinetics in the development oblypropylene filaments; © 1993 John V 1995/93/040623-9	of the structure and properties of Viley & Sons, Inc.; CCC 0021-
	CF	Article; Study on the fol	rmation of b-crystalline from isotactic petern. Polymer Processing VI, 1991; Cr	olypropylene fiber; fiber and films, nen et al.
	CG		Nucleation of Polypropylene and Polyp	
Examiner:	Ecc	id	Date Considered:	6/04
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ļ	Form PTO-14	49 (Modified)		Serial No	D.: 10/655,227	F	iling Date	: Septemb	er 4, 20	03
INFORMA IN	TION DISCL	OSURE STATEME	NT	Inventor(s): Morin et al.					
	•	:		Group Ar	t Unit: 1774	E	xaminer:	Edwards, i	Newton	O
	Sheet 3	_ of <u>3</u>		US PTO	Customer No: 25280	C	ase No.: (5514A		
	· · · · · · · · · · · · · · · · · · ·		FO	REIGN PA	TENT DOCUMENTS				•	
EXAMINER INITIALS	IDENTIFIER	DOCUMENT NUMBER		DATE	COUNTRY		CLASS	SUB- CLASS	TRANS	LATION
	СН	0 611 271	10	0.02.94	· EP				X	
	-cı_	0 806 237	07.	05.1997	EP				X	
) ·	CJ	P2002-302825	4.	4.2001	Japah					X.
	СК	02/48502	100	143/02	WO	.	•		Х	-
	CL	11140719	5.	/25/99	JP			•	•	х
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

6,203,881 5,945,216 6,559,216 6,559,216 6,540,968 81 5,545,276 8J 5,948,500 9K 4,171,395 9L 4,132,817 M 4,512,831 N 4,116,626 O 5,136,520	9/12/97 5/03 6/11/85 7/30/96 8/13/96 9/7/99 10/16/79 1/2/79 4/23/85 9/26/78	Higgins Bersted et al. Zhao et al. Higgins Higgins Higgins Tollotson Tillotson Varner	428 524 428 428 428 156 428 427 156 4	95 364 336 95 95 79 95 95 244 78
6,559,216 4,522,857 3H 5,540,968 3I 5,545,276 3J 5,948,500 3K 4,171,395 3L 4,132,817 M 4,512,831 N 4,116,626	5/03 6/11/85 7/30/96 8/13/96 9/7/99 10/16/79 1/2/79 4/23/85 9/26/78	Zhao et al. Higgins Higgins Higgins Tollotson Tillotson Tillotson	524 428 428 156 428 428 427 156	336 95 95 79 95 95 244 78
3G 4,522,857 3H 5,540,968 3I 5,545,276 3J 5,948,500 3K 4,171,395 3L 4,132,817 M 4,512,831 N 4,116,626	6/11/85 7/30/96 8/13/96 9/7/99 10/16/79 1/2/79 4/23/85 9/26/78	Higgins Higgins Higgins Tillotson Tillotson	428 428 156 428 428 427 156	95 95 79 95 95 244 78
3H 5,540,968 3I 5,545,276 3J 5,948,500 3K 4,171,395 3L 4,132,817 4,512,831 N 4,116,626	7/30/96 8/13/96 9/7/99 10/16/79 1/2/79 4/23/85 9/26/78	Higgins Higgins Tillotson Tillotson	428 156 428 428 427 156	95 79 95 95 244 78
5,545,278 3J 5,948,500 K 4,171,395 IL 4,132,817 M 4,512,831 N 4,116,626	8/13/96 9/7/99 10/16/79 1/2/79 4/23/85 9/26/78	Higgins Tillotson Tillotson	156 428 428 427 156	79 95 95 244 78
3J 5,948,500 K 4,171,395 IL 4,132,817 M 4,512,831 N 4,116,626	9/7/99 10/16/79 1/2/79 4/23/85 9/26/78	Tollotson Tillotson Tillotson	428 428 427 156	95 95 244 78
K 4,171,395 L 4,132,817 M 4,512,831 N 4,116,626	10/16/79 1/2/79 4/23/85 9/26/78	Tollotson Tillotson Tillotson	428 427 156	95 244 78
M 4,132,817 M 4,512,831 N 4,116,626	1/2/79 4/23/85 9/26/78	Tillotson Tillotson	427 156	244 78
M 4,512,831 N 4,116,626	4/23/85 9/26/78	Tillotson	156	78
N 4,116,626	9/26/78	X		
-	<u> </u>	Varner	4	149
O 5,136,520	9/1/02			
	014132	Cox	364	470
P 5,208,592	6-4-93	Johnson, Jr.	341	63
Q 6,534,574	3/03	Zhao et al.	524	284
R 6,559,211	5/03	Znao et al.	524	285
6,656,404	12/03	Morin	264	210.
б,110,588	8/29/00	Perez et al.	428	359
6,420,024	7/16/02	Perez et al.	428	359
6,358,450	3/19/02	Sun	264	178
V 5,912,292	6/15/99	Sun	524	301
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	6,559,211 6,656,404 6,110,588 6,420,024 6,358,450 5,912,292	6,559,211 5/03 6,656,404 12/03 6,110,588 8/29/00 6,420,024 7/16/02 6,358,450 3/19/02	8 6,559,211 5/03 Zhao et al. 6 656,404 12/03 Morin 6,110,588 8/29/00 Perez et al. 6,420,024 7/16/02 Perez et al. 7 6,358,450 3/19/02 Sun 7 5,912,292 6/15/99 Sun Date Considered:	R 6,559,211 5/03 Zhao et al. 524 6 6,656,404 12/03 Morin 264 6,110,588 8/29/00 Perez et al. 428 6,420,024 7/16/02 Perez et al. 428 6,358,450 3/19/02 Sun 264 7 5,912,292 6/15/99 Sun 524

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